

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPELLANT:	Klaus Biester	§	ART UNIT:	3656
SERIAL NO.:	10/525,937	§	EXAMINER:	William C. Joyce
FILED:	February 25, 2005	§	CONFIRMATION NO.:	4987
FOR:	Drive Device	§	ATTY. DKT. NO.:	1600-11800

**AMENDED APPEAL BRIEF**

**Mail Stop Appeal Brief – Patents**  
Commissioner for Patents  
PO Box 1450  
Alexandria, VA 22313-1450

Date: January 5, 2010

Sir:

Appellant hereby submits this Amended Appeal Brief in connection with the above-identified application and in response to the Notification of Non-Compliant Appeal Brief dated December 7, 2009. A Notice of Appeal was filed on June 12, 2009.

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**I. REAL PARTY IN INTEREST**

The real party in interest is Cameron International Corporation, a corporation having its principal place of business in Houston, Texas. The Cooper Cameron Corporation is now known as Cameron International Corporation. The Assignment from the inventors to Cooper Cameron Corporation was recorded on September 12, 2005 at Reel/Frame 016520/0228.

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## **II. RELATED APPEALS AND INTERFERENCES**

Appellants are unaware of any related appeals or interferences.

### **III. STATUS OF THE CLAIMS**

Originally filed claims:	1-19.
Added claims:	None.
Presently pending claims:	1-19.
Allowed claims:	4-6.
Withdrawn claims:	8-12, 17 and 18.
Presently appealed claims:	1-3, 7, 13-16 and 19.

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#### **IV. STATUS OF THE AMENDMENTS**

No claims were amended after the Final Office Action dated March 12, 2009.

## V. SUMMARY OF THE CLAIMED SUBJECT MATTER

The invention relates to a drive device for adjusting an operating element for a valve, a throttle, a blow-out preventer, or the like.<sup>1</sup> Significant force is often required to adjust the operating element.<sup>2</sup> To provide the necessary force, a plurality of large driving motors may be employed.<sup>3</sup> Consequently, the drive device may become relatively bulky and difficult to handle.<sup>4</sup> Appellant has developed a drive device having both high performance and a very compact design.

The drive device for adjusting an operating element of claim 1 includes at least one driving motor, at least one transmission changing unit, and/or a revolution/linear motion converter.<sup>5</sup> The at least one driving motor is actively connected with the operating element via a drive train.<sup>6</sup> The drive train includes at least one essentially disk or wheel-shaped revolution introducing device actively connected with at least two drive shafts rotated by separate driving motors.<sup>7</sup> The at least one transmission changing unit is arranged in the drive train for converting a revolution of the driving motor into a revolution of the operating element.<sup>8</sup> The revolution/linear motion converter is arranged for converting the revolution of the driving motor into a linear motion of the operating element.<sup>9</sup>

The drive device of claim 7, which depends from claim 1, further requires the drive shaft to be arranged perpendicularly to the longitudinal direction of the operating element.<sup>10</sup>

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<sup>1</sup> Page 1, Para. [0003], Lines 30-32.

<sup>2</sup> Page 1, Para. [0005], Lines 51-52.

<sup>3</sup> Page 1, Para. [0005], Lines 52-54.

<sup>4</sup> Page 1, Para. [0006], Lines 6-10.

<sup>5</sup> Page 2, Para. [0026], Lines 38-43; Page 3, Para. [0042], Lines 25-27, 30; reference character 1 of Figure 1 identifies a drive device, reference character 2 of Figure 1 identifies an operating element, reference character 5 of Figure 1 identifies a transmission changing unit, reference characters 4, 7, 8, 9 of Figure 2 identify driving motors, and reference character 27 identifies a spindle which, per Para. [0026], may form a revolution/linear motion converter.

<sup>6</sup> Page 3, Para. [0042], Lines 25-27, 30; reference character 2 of Figure 1 identifies an operating element, reference character 3 of Figure 1 identifies a drive train, and reference characters 4, 7, 8, 9 of Figure 2 identify driving motors.

<sup>7</sup> Page 1, Para. [0009], Lines 22-26; Page 3, Para. [0045], Lines 56-58; reference character 3 of Figure 1 identifies a drive train, reference character 6 of Figures 1 and 2 identifies a disk or wheel-shaped revolution introducing device, reference characters 10, 11 of Figure 2 identify drive shafts, and reference characters 4, 7, 8, 9 of Figure 2 identify driving motors.

<sup>8</sup> Figure 1; Page 4, Para. [0046], Lines 5-11.

<sup>9</sup> Page 2, Para. [0026], Lines 38-43.

<sup>10</sup> Page 4, Para. [0052], Lines 40-44.

The drive device of claim 16, which depends from claim 1, further requires the driving motors are electronically synchronized.<sup>11</sup>

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<sup>11</sup> Page 2, Para. [0027], Lines 51-53.



**VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL**

Whether claims 1, 2, 14-16, and 19 are anticipated under 35 U.S.C. § 102(b) by *Linzenkirc* (German Patent No. 3 306 899, issued to Linzenkirc).

Whether claims 3 and 7 are unpatentable under 35 U.S.C. § 103(a) over *Linzenkirc* in view of *Vyskocil* (U.S. Patent No. 3,998,108, issued to Vyskocil).

Whether claim 13 is unpatentable under 35 U.S.C. § 103(a) over *Linzenkirc*.

## VII. ARGUMENT

### A. *Linzenkirc*

Appellant disclosed *Linzenkirc* in an Information Disclosure Statement (IDS) filed on September 15, 2005 in connection with the present application. Appellant indicated within the IDS that *Linzenkirc* was identified by a Search Report issued in connection with the PCT Application to which the present application claims priority, and in doing so, satisfied the requirement for a concise explanation of its relevance. M.P.E.P. § 609.04(a) III.

In the Final Office Action dated March 12, 2009, the Examiner issued claim rejections based on *Linzenkirc*. However, the Examiner did not indicate which portion(s) of *Linzenkirc* disclose the subject matter of the rejected claims. "It is incumbent upon the Examiner to identify wherein each and every facet of the claimed invention is disclosed in the applied reference." *Ex parte Levy*, 17 USPQ.2d 1461, 1462 (Bd. Pat. App. & Int'f 1990).

Furthermore, the M.P.E.P. states that "[c]itation of and reliance upon an abstract without citation of and reliance upon the underlying scientific document is generally inappropriate where both the abstract and the underlying document are prior art." M.P.E.P. § 706.02, p. 700-20 (citing *Ex parte Jones*, 62 USPQ2d 1206, 1208 (Bd. Pat. App. & Inter. 2001) (unpublished)). The M.P.E.P. further states that "[t]o determine whether both the abstract and the underlying document are prior art, a copy of the underlying document must be obtained and analyzed." *Id.* (emphasis added). If the relied-upon document is in a language other than English, the M.P.E.P. mandates that "a translation must be obtained so that the record is clear as to the precise facts the examiner is relying upon in support of the rejection" and that "[t]he record must also be clear as to whether the examiner is relying upon the abstract or the full text document to support a rejection." *Id.* (emphasis added). Thus, the Board of Patent Appeals and Interferences has stated that "[i]f a translation is not provided by the examiner, the applicant may wish to consider seeking supervisory relief by the way of a petition (37 C.F.R. § 1.181) to have the examiner directed to obtain and supply a translation." *Id.* at 1208-1209 (emphasis added).

To date, the Examiner has not indicated whether he relied solely on the Abstract or on the full text of *Linzenkirc* to support his claim rejections. Because the Examiner provided the Appellant with only an English translation of the Abstract with the Final Office Action dated March 12, 2009, and not a full translation of *Linzenkirc*, Appellant assumes the Examiner relied

solely on the Abstract to support his rejections of claims 1-3 and 7-19. If this assumption is incorrect and the Examiner instead relied on the full text of *Linzenkirc*, Appellant respectfully asserts that such reliance was improper because the Examiner did not provide the Appellant with an English translation of the full text of *Linzenkirc*.

The Notice of Non-Compliant Appeal Brief dated December 7, 2009 and accompanying attachment PTO 892 indicate that a full translation of *Linzenkirc* has been obtained. However, when the Notice was downloaded from PAIR, the full translation was unavailable on that date and therefore was not downloaded with the Notice.

On December 29, 2009, the file wrapper was checked via PAIR. At that time, the file wrapper included a document that, based solely on its page length, could have been the full translation of *Linzenkirc*, although its title did not indicate such. Regardless, the document could not be downloaded and was instead only available by ordering a copy of it.

**B. Claims 1, 2, 14-16, and 19 Rejected as Anticipated by *Linzenkirc***

Claims 1, 2, 14-16, and 19 stand rejected as anticipated by *Linzenkirc*. Appellant respectfully traverses.

Claim 1 recites a revolution/linear motion convertor being arranged for converting the revolution of the driving motor into a linear motion of the operating element. "When an abstract is used to support a rejection, the evidence relied upon is the facts contained in the abstract, not additional facts that may be contained in the underlying full text document." M.P.E.P. § 706.02 II. The Abstract of *Linzenkirc* does not disclose a component for converting the revolution of either electric motor 9, 9' (the *Linzenkirc* driving motors) into a linear motion of the valve spindle 4 (the *Linzenkirc* operating element). Therefore, *Linzenkirc* does not anticipate claim 1, or its dependent claims 2, 14-16, and 19.

Further in regards to claim 16, the Abstract does not disclose that electric motors 9, 9' are synchronized. For at least this additional reason, *Linzenkirc* does not anticipate claim 16.

**C. Claim 7 Rejected as Obvious over *Linzenkirc* in view of *Vyskocil***

Claims 3 and 7 stand rejected as obvious over *Linzenkirc* in view of *Vyskocil*. Appellant respectfully traverses.

Any rejection under 35 U.S.C. § 103 must clearly and explicitly articulate the reason(s) why the claimed invention would have been obvious. M.P.E.P. § 2142 (2007). The framework for determining obviousness under 35 U.S.C. § 103 requires (1) determination of the scope and content of the prior art; (2) assessment of the differences between the claimed invention and the prior art; and (3) assessment of the level of ordinary skill in the pertinent art. M.P.E.P. § 2141 (2007) (citing *KSR International Co. v. Teleflex Inc.*, 550 U.S. \_\_\_, \_\_\_, 82 USPQ2d 1385, 1395-97 (2007); *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966)). According to M.P.E.P. § 2141, ascertaining the differences between the claimed invention and the prior art requires interpreting the claim language. For instance, to establish obviousness, each of the claim limitations must be taught or suggested by the prior art. See *CFMT, Inc. v. YieldUp Int'l Corp.*, 349 F.3d 1333, 1342 (Fed. Cir. 2003) (citing *In re Royka*, 490 F.2d 981, 985 (CCPA 1974)).

Claims 3 and 7 depend from claim 1, which recites a revolution/linear motion convertor being arranged for converting the revolution of the driving motor into a liner motion of the operating element. As discussed above, the Abstract of *Linzenkirc* does not disclose the subject matter of this limitation. *Vyskocil* does not obviate its deficiency. Thus, the combination of these references does not disclose all of the limitations of claims 3 and 7. Therefore, the combination of these references does not render obvious claims 3 and 7.

Further in regard to claim 7, the Abstract of *Linzenkirc* does not disclose shafts 11, 11' are arranged perpendicular to the valve spindle. For at least this additional reason, the combination of *Linzenkirc* and *Vyskocil* does not render obvious claim 7.

Claim 13 stands rejected as obvious over *Linzenkirc*. Appellant respectfully traverses. Claim 13 depends from claim 1, which recites a revolution/linear motion convertor being arranged for converting the revolution of the driving motor into a liner motion of the operating element. As discussed above, the Abstract of *Linzenkirc* does not disclose the subject matter of this limitation. Therefore, *Linzenkirc* does not render obvious claim 13.

#### **D. Conclusion**

For the reasons stated above, Appellants respectfully submit that the Examiner erred in rejecting pending claims 1-3 and 7-19. Appellants respectfully request the withdrawal of all claim rejections and allowance of all pending claims. It is believed that no extensions of time or fees

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are required, beyond those that may otherwise be provided for in documents accompanying this paper. However, in the event that additional extensions of time are necessary to allow consideration of this paper, such extensions are hereby petitioned under 37 C.F.R. § 1.136(a), and any fees required (including fees for net addition of claims) are hereby authorized to be charged to Deposit Account No. 03-0335 of Conley Rose, P.C., Houston, Texas.

Respectfully submitted,

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## **VIII. CLAIMS APPENDIX**

1. (previously presented) Drive device for adjusting an operating element in a component used in the field of gas or oil exploitation and/or production, the operating element being actively connected with at least one driving motor via a drive train, and at least one transmission changing unit being arranged in the drive train for converting a revolution of the driving motor into a revolution of the operating element, and/or a revolution/linear motion converter being arranged for converting the revolution of the driving motor into a linear motion of the operating element, characterized in that the drive train comprises at least one essentially disk- or wheel-shaped revolution introducing device actively connected with at least two drive shafts rotated by separate driving motors.

2. (previously presented) Drive device according to claim 1, characterized in that the revolution introducing device comprises an external toothing actively connected at certain places with the drive shafts in the peripheral direction of the revolution introducing device.

3. (previously presented) Drive device according to claim 1, characterized in that the revolution introducing device is designed as a worm wheel and a worm is arranged at each drive shaft.

4. (previously presented) Drive device for adjusting an operating element in a component used in the field of gas or oil exploitation and/or production, the operating element being actively connected with at least one driving motor via a drive train, and at least one transmission changing unit being arranged in the drive train for converting a revolution of the driving motor into a

revolution of the operating element, and/or a revolution/linear motion converter being arranged for converting the revolution of the driving motor into a linear motion of the operating element, characterized in that the drive train comprises at least one essentially disk- or wheel-shaped revolution introducing device actively connected with at least two drive shafts rotated by separate driving motors;

the revolution introducing device being designed as a worm wheel and a worm being arranged at each drive shaft; and

wherein the worm is arranged essentially centrically on each of the at least two drive shafts driven by motors on both sides.

5. (previously presented) Drive device according to claim 4, characterized in that the worm is placed on said at least two drive shafts in a detachable fashion.

6. (previously presented) Drive device for adjusting an operating element in a component used in the field of gas or oil exploitation and/or production, the operating element being actively connected with at least one driving motor via a drive train, and at least one transmission changing unit being arranged in the drive train for converting a revolution of the driving motor into a revolution of the operating element, and/or a revolution/linear motion converter being arranged for converting the revolution of the driving motor into a linear motion of the operating element, characterized in that the drive train comprises at least one essentially disk- or wheel-shaped revolution introducing device actively connected with at least two drive shafts rotated by separate driving motors; and

wherein at least one driving motor is assigned to each end of the at least two drive shafts.

7. (previously presented) Drive device according to claim 1, characterized in that the drive shaft is arranged perpendicularly to the longitudinal direction of the operating element.
8. (withdrawn) Drive device according to claim 1, characterized in that for forming a double helical gearing, the revolution introducing device is designed as a helical gear spur wheel, and a helical gear drive wheel is arranged on each drive shaft.
9. (withdrawn) Drive device according to claim 1, characterized in that at least two driving motors are assigned to the drive shaft at one end.
10. (withdrawn) Drive device according to claim 1, characterized in that between driving motors and the helical gear drive wheel, a step-down gear unit, in particular a so-called harmonic drive, is arranged as transmission changing unit.
11. (withdrawn) Drive device according to claim 1, characterized in that the drive shaft is arranged in parallel to the longitudinal direction of the operating element.
12. (withdrawn) Drive device according to claim 1, characterized in that the drive shaft is mounted in a floating fashion.
13. (previously presented) Drive device according to claim 1, characterized in that a positioning sensor is assigned to the revolution introducing device.



14. (previously presented) Drive device according to claim 1, characterized in that the drive train comprises a rotating spindle and/or a recirculating ball nut and/or a step-down gear unit downstream of the revolution introducing device.

15. (previously presented) Drive device according to claim 1, characterized in that the drive shafts are synchronized by a mechanical coupling device.

16. (previously presented) Drive device according to claim 1, characterized in that the driving motors are electrically synchronized.

17. (withdrawn) Drive device according to claim 8, characterized in that the worm wheel/worm or helical gear spur wheel/helical gear drive wheel include gears that are self-locking.

18. (withdrawn) Drive device according to claim 1, characterized in that a helical angle of the teeth of the double helical gearing is between  $40^\circ$  and  $85^\circ$  in particular between  $60^\circ$  and  $80^\circ$ .

19. (previously presented) Drive device according to claim 1, characterized in that the essentially disk- or wheel-shaped revolution introducing device is actively connected with a mechanical coupling device.

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**IX. EVIDENCE APPENDIX**

None.

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**X. RELATED PROCEEDINGS APPENDIX**

None.